

# EXHIBIT W

**PUBLIC VERSION**

**UNITED STATES INTERNATIONAL TRADE COMMISSION  
WASHINGTON, D.C.**

**Before the International Trade Commission**

In the Matter of

CERTAIN MOBILE TELEPHONES AND  
WIRELESS COMMUNICATION  
DEVICES FEATURING DIGITAL  
CAMERAS, AND COMPONENTS  
THEREOF

Inv. No. 337-TA-703

**APPLE'S STATEMENT ON THE PUBLIC INTEREST**

***Served on Behalf of Respondent:***

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Respondent Apple Inc. in the above-captioned Investigation submits this statement pursuant to the Commission's Notice of Request for Statements on the Public Interest. Given the page limitation, this submission is only a summary of the relevant information that Apple is prepared to submit should the Commission provide Apple the opportunity to do so.

**I. HOW THE ARTICLES POTENTIALLY SUBJECT TO THE ORDERS ARE USED IN THE UNITED STATES**

Apple's iPhones are used everyday in the United States by millions of consumers to perform a countless number of essential personal, commercial, governmental, and safety-related tasks unrelated to the digital camera functionality at issue in this Investigation, including: (i) placing and receiving phone calls; (ii) sending and receiving text messages and e-mails; (iii) navigation; (iv) managing contact information; (v) managing calendars and schedules; (vi) mobile banking and e-commerce; (vii) monitoring weather and managing investments; and (viii) accessing the internet, among many others tasks. *See* Conf. Hausman Decl. at ¶ 7. Indeed, over 350,000 applications can be installed and run on Apple's iPhones. *Id.* at ¶ 8. This high number of applications significantly exceeds the number of applications available on competing smart phone platforms. *Id.*

Thus, when considering the countless tasks that the iPhone products perform, it is clear that the value of the accused digital camera technology is a small fraction of the overall economic value of the accused iPhone products to U.S. consumers. *Id.* at ¶ 9. It also is clear that the accused digital camera technology is a tiny fraction of the core functionality of the accused iPhone products, which perform the tasks outlined above without the use of the digital camera. *Id.* at ¶ 10.

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**II. IMPACT OF POTENTIAL ORDERS ON COMPETITIVE CONDITIONS IN THE UNITED STATES ECONOMY AND ON UNITED STATES CONSUMERS**

Any remedy issued against Apple would adversely affect Apple, competitive conditions in the market, and the general public in at least the following ways:

a. Severe Detriment To Apple. From the introduction of the iPhone in 2007 through the close of the second fiscal quarter of 2010, Apple's U.S. iPhone revenues were over \$ [ ] billion. *See id.* at ¶ 11. In fiscal year 2010 alone, Apple imported close to [ ] million iPhones, valued at over \$ [ ] billion. *See id.* at ¶ 12. In fiscal year 2009, gross billings of the iPhone 3G and iPhone 3GS in the United States accounted for approximately [ ] % of Apple's *worldwide* net sales of *all* products and services, which is highly significant. *Id.* at ¶ 13. In addition to lost sales, any remedy could have a substantial negative impact on Apple's overall business, including: (i) Apple's approximately 46,000 full-time equivalent employees, (ii) Apple's over 300 stores worldwide, including over 230 stores in the United States, and (iii) Apple's billions of dollars of investment in research and development, substantially all of which takes place in the United States. *Id.* at ¶¶ 14-15. Apple's \$3.2 billion dollars in relevant investments from 2007 to 2009 grossly overshadow Kodak's \$ [ ] investment over a similar time period. *Id.* at ¶ 16; Kodak Pre-Hearing Brief at p. 380.

b. Severe Detriment To Third Parties. An exclusion or cease-and-desist order would cause substantial harm to third parties, and that harm would greatly exceed any benefit to Kodak. For example, an exclusion order would adversely affect content providers who sell content to the iPhone through the iTunes store. Total U.S. iTunes store revenue from FY2007 through the third quarter of FY2010 was \$ [ ]. *Id.* at ¶ 17. Slightly over [ ] % of this revenue is paid to content providers as a royalty. *Id.* Thus, the exclusion of iPhone products could result in the loss of [ ] dollars in revenue to third parties. An exclusion order directed against iPhones would also place

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sales from direct downloads to Windows computers at risk, because users can transfer content from Windows to their iPhones.<sup>1</sup> *Id.* at ¶ 18.

An exclusion order would also impose undue burden on numerous other third parties, including at least Apple's component manufacturers, network carriers, and accessories suppliers. For example, Verizon and AT&T provide service to approximately 58% of U.S. mobile phone users. *Id.* at ¶ 20. iPhone users account for a large portion of network capacity and data usage (and, accordingly, network and data usage fees) on the AT&T network, and iPhone users are similarly expected to account for a large portion of network capacity and data usage on the Verizon network. *Id.* Eliminating iPhone sales in the United States would thus interrupt a major revenue stream for these carriers.

The investing public would also be harmed. Apple has the second highest market capitalization of any U.S. company, is the second largest component of the S&P 500 Index, and accounts for roughly 20% of the value of the NASDAQ 100. *Id.* at ¶ 21. An exclusion order preventing the importation of iPhones would likely have a significant negative impact on Apple's share price and thus on market indices and associated exchange-traded funds. *Id.* at ¶ 22.

c. Detriment To Consumers. Apple is the number two supplier of smart-phones in the United States, providing over 25% of U.S. handsets, though other sources place Apple's market share as high as 38%. *Id.* at ¶ 23. Thus, given its market share, the interruption of supply of Apple's iPhones would significantly decrease (i) the economic efficiency of the U.S. economy, and (ii) the choice and availability of smart-phone handsets to consumers, which would

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<sup>1</sup> In this regard, many users who purchase iPhones do so due to their compatibility with other Apple devices such as MacBooks and iPods. *Id.* at ¶ 19. Thus, an exclusion order against iPhones has the potential to eliminate sales of other Apple products as well.

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undoubtedly result in consumers facing higher prices for handsets. *Id.* at ¶ 24-25, 31. The health, safety, and welfare of consumers would also be adversely affected, as explained in Section III, *infra*.

d. No Benefit to Kodak. Kodak would not benefit from an exclusion order because it does not sell products that directly compete with iPhones and does not have [ ] licenses. *Id.* at ¶ 26.<sup>2</sup> Thus, the harm to Apple, consumers, and other third parties from an exclusion order is substantially greater than any benefit to Kodak.

**III. PUBLIC HEALTH, SAFETY, OR WELFARE CONCERNS IN THE UNITED STATES RELATING TO THE POTENTIAL ORDERS**

Consumers rely on cellular phones for security because, among other reasons, cellular phones enable consumers to gain quicker access to emergency personnel when away from home.<sup>3</sup> Consequently, eliminating Apple's iPhone products from the U.S. cellular handset market may adversely affect the market trend towards smart-phones as the preferred telecommunications technology and the sense of security cellular handsets provide to consumers. *Id.* at ¶ 27.

Additionally, iPhone users can perform a myriad of tasks with the iPhone to address public health and safety concerns, such as researching medical information, managing home security accounts, viewing surveillance videos, and monitoring the locations of family members. *Id.* at ¶ 28. Because of Apple's significant market share and the inability of Kodak or others to produce or replace the excluded articles, an exclusion order or cease-and-desist order would thus adversely affect the health, safety, and welfare of U.S. consumers.

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<sup>2</sup> See also CX-582C/583C ([ ] licenses); CX-564C/565C ([ ] licenses); CX-568C ([ ] license); CX-562C ([ ] license); CX-572C/573C ([ ] licenses).

<sup>3</sup> See AARP, *Public Policy Institute, Cell Phones for Safety and Security in Case of an Emergency*, June 2006, [http://www.aarp.org/technology/privacy-security/info-2006/fs131\\_emergency.html](http://www.aarp.org/technology/privacy-security/info-2006/fs131_emergency.html).

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**IV. THE EXTENT TO WHICH LIKE OR DIRECTLY COMPETITIVE ARTICLES ARE PRODUCED IN THE UNITED STATES OR ARE OTHERWISE AVAILABLE IN THE UNITED STATES**

No other smart-phone device can be considered directly competitive to Apple's iPhones.

First, the content supported by the iPhone is not compatible with any other non-Apple device.

Apple iPhones function on a different operating system than other smart-phones. *Id.* at ¶ 29.

Second, whereas iPhone content is downloaded and purchased from the Apple App Store, other smart-phones such as the Android cannot access the App Store or operate App Store content and instead offer different, incompatible applications. *Id.* at ¶ 30. Apple offers hundreds of thousands of applications for use exclusively with iPhones, while other content providers for other smart-phones offer only a small fraction of similar applications. *Id.* at ¶ 31. Finally, Apple, AT&T, and Verizon have struggled to meet the demand of iPhone customers. *Id.* at ¶ 32. Any remedy issued in this Investigation would no doubt worsen the delay in handset deliveries even further.

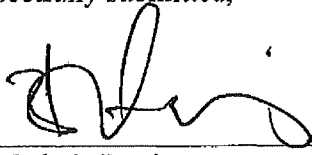
**V. WHETHER KODAK, KODAK'S LICENSEES, AND/OR THIRD PARTY SUPPLIERS HAVE THE CAPACITY TO REPLACE THE VOLUME OF ARTICLES POTENTIALLY SUBJECT TO THE ORDERS WITHIN A COMMERCIALY REASONABLE TIME**

On information and belief, neither Kodak nor its licensees or other third parties have the capacity to replace the enormous volume of articles potentially subject to an exclusion or cease-and-desist order within a commercially reasonable time. *Id.* at ¶ 33. This problem is further compounded by Kodak's simultaneous attempt to exclude Research In Motion's (RIM) BlackBerry products, which represent another 35% of the U.S. smart-phone market. *Id.* at ¶ 34. Thus, Kodak's request to exclude a combined 63% of U.S. smart-phones could have substantial adverse effects on both Apple and RIM, as well as countless other third parties and U.S. consumers.

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Dated: March 10, 2011

Respectfully submitted,

By: 

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*Counsel for Respondent Apple Inc.*



**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing APPLE'S STATEMENT ON THE PUBLIC INTEREST (PUBLIC VERSION) was served on March 10, 2011 as indicated, on the following:

<p><b><u>Via EDIS</u></b> The Honorable James R. Holbein Acting Secretary U.S. International Trade Commission 500 E Street SW, Room 112 Washington, D.C. 20436</p>	<p><b><u>Via Hand Delivery (2 copies)</u></b> The Honorable Paul J. Luckern Office of the Administrative Law Judge U.S. International Trade Commission 500 E Street S.W., Room 317-H Washington, D.C. 20436</p>
<p><b><u>Via E-Mail and Hand Delivery</u></b> Vu Q. Bui Office of Unfair Import Investigations U.S. International Trade Commission 500 E Street S.W., Room 401 Washington, D.C. 20436 vu.bui@usitc.gov</p>	<p><b><u>Via E-Mail and Hand Delivery</u></b> Eric C. Rusnak, Esq. K&amp;L Gates, LLP 1601 K Street, N.W. Washington, D.C. 20006 KodakITC703_Service@klgates.com  <i>Counsel for Complainant Eastman Kodak</i></p>
<p><b><u>Via Email and Hand Delivery</u></b> Thomas J. Jarvis Finnegan, Henderson, Farabow, Garrett &amp; Dunner, LLP 901 New York Avenue NW Washington, DC 20001 337-703RIM@finnegan.com  <i>Counsel for Respondents Research in Motion, Ltd and Research in Motion Corporation</i></p>	



Tessa Strasser  
Paralegal

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UNITED STATES INTERNATIONAL TRADE COMMISSION  
WASHINGTON, D.C.

Before the International Trade Commission

In the Matter of

CERTAIN MOBILE TELEPHONES AND  
WIRELESS COMMUNICATION  
DEVICES FEATURING DIGITAL  
CAMERAS, AND COMPONENTS  
THEREOF

Inv. No. 337-TA-703

**DECLARATION OF JERRY A. HAUSMAN**  
**IN SUPPORT OF APPLE'S STATEMENT ON THE PUBLIC INTEREST**

I, Jerry A. Hausman, declare as follows:

1. I have formed the following opinions based upon my review of relevant documents and discussions with persons at Apple knowledgeable about these issues, and if called to testify, I could and would testify competently to the opinions stated herein.
2. I am an expert in economics, financial analysis, and intellectual property licensing issues in high-technology industries. *See* CV, attached hereto as **Exhibit A**.
3. I have been asked by counsel for Respondent Apple Inc. ("Apple") to evaluate economic issues relating to the imposition of a limited exclusion order and cease-and-desist order in this Investigation.
4. I have considered Apple documents and information produced and exchanged in this and other ITC investigations, other Apple confidential business information, as well as publicly available documents and information.
5. If provided the opportunity to do so, I could submit a more comprehensive analysis of the information summarized below.

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6. Based on my analysis, as described more fully below, I have reached the following conclusions:

- The value of the accused digital camera technology is a small fraction of the overall economic value of the accused iPhones.
- The accused digital camera technology is a tiny fraction of the core functionality of the accused iPhones.
- The accused iPhones have significant economic value to Apple and third parties, including U.S. consumers.
- Any remedy issued in this Investigation would have a significant adverse impact on Apple, consumers, the investing public, and other third parties.
- The harm to these parties from an exclusion order would greatly exceed any benefit to Kodak.
- There are no other smart-phone devices directly competitive to iPhones currently available in the United States.
- Kodak, its licensees, and other third parties do not have the capacity to replace the volume of iPhones subject to an exclusion or cease-and-desist order.

7. Apple's iPhones are used everyday in the United States by millions of consumers to perform a countless number of essential personal, commercial, governmental, and safety-related tasks unrelated to the digital camera functionality at issue in this Investigation, including: (i) placing and receiving phone calls; (ii) sending and receiving text messages and e-mails; (iii) navigation; (iv) managing contact information; (v) managing calendars and schedules; (vi) mobile banking and e-commerce; (vii) monitoring weather and managing investments; and (viii) accessing the internet, among many others tasks. See [www.apple.com/iPhone](http://www.apple.com/iPhone).

8. Over 350,000 applications can be installed and run on Apple's iPhones. See <http://www.apple.com/iphone/apps-for-iphone/>. This high number of applications significantly exceeds the number of applications available on competing smart phone platforms, e.g. Android, RIM, or Nokia/Symbian.

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9. The value of the accused digital camera feature is a small fraction of the overall economic value of the accused iPhone products to U.S. consumers. *See, e.g.*, [ ] (explaining that the product is made up of hundreds of different features).

10. The accused digital camera technology is a tiny fraction of the core functionality of the accused iPhone products, which perform the tasks outlined above without the use of the digital camera. *Id.*

11. From the introduction of the iPhone in 2007 through the close of the second fiscal quarter of 2010, Apple's U.S. iPhone revenues were over \$ [ ] billion.<sup>1</sup>

12. In fiscal year 2010, Apple imported close to [ ] million iPhones, valued at over \$ [ ] billion. *See Confidential Appendix A to Apple's Response to the Complaint, Inv. No. 337-TA-745 (Dec. 1, 2010).*

13. In fiscal year 2009, gross billings of the iPhone 3G and iPhone 3GS in the United States accounted for approximately [ ] % of Apple's worldwide net sales of all products and services, which is highly significant. *See Confidential Appendix A to Apple's Response to the Complaint, Inv. No. 337-TA-703 (March 16, 2010).*

14. Apple has invested approximately \$782 million, \$1.1 billion, and \$1.3 billion in fiscal years 2007, 2008, and 2009, respectively, substantially all of which was incurred in the United States. *See Apple's Complaint, Inv. No. 337-TA-717, ¶ 2 (April 15, 2010); Apple Inc. 2010 Form 10K/A for the year ended September 26, 2009, p. 15.*

15. Any remedy could have a substantial negative impact on Apple's overall business, including: (i) Apple's approximately 46,000 full-time equivalent employees, (ii) Apple's over 300 stores worldwide, including over 230 stores in the United States, and (iii) Apple's billions of

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<sup>1</sup> Derived from review of Apple confidential financial documents.

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dollars of investment in research and development, substantially all of which takes place in the United States. See Apple's Complaint, Inv. No. 337-TA-717, ¶ 2 (April 15, 2010); Apple Inc., Form 10-K for the fiscal year ended September 25, 2010, pp. 2, 10; Apple Inc. 2010 Form 10K/A for the year ended September 26, 2009, p. 15.

16. Apple has invested a total of \$3.2 billion in relevant investments from 2007 to 2009. Apple Inc. 2010 Form 10K/A for the year ended September 26, 2009, p. 15.

17. Total U.S. iTunes store revenue from FY2007 through the third quarter of FY2010 was \$ [ ].<sup>2</sup> Slightly over [ ] % of this revenue is paid to content providers as a royalty.<sup>3</sup>

18. An exclusion order directed against iPhones would also place sales from direct downloads to Windows computers at risk, because users can transfer content from Windows to their iPhones. See <http://www.apple.com/iphone/specs.html> (setting forth Windows specifications).

19. Many users who purchase iPhones do so due to their compatibility with other Apple devices such as MacBooks and iPods.

20. Verizon and AT&T provide service to approximately 58% of U.S. mobile phone users.<sup>4</sup> iPhone users account for a large portion of network capacity and data usage (and, accordingly, network and data usage fees) on the AT&T network.<sup>5</sup> iPhone users are expected to

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<sup>2</sup> Derived from review of Apple confidential financial documents.

<sup>3</sup> Derived from review of Apple confidential financial documents.

<sup>4</sup> See e.g. PCMag.com, *AT&T Could Lose 16 Percent of Customers to Verizon iPhone* (Jan. 13, 2011), available at <http://www.pcmag.com/article2/0,2817,2375706,00.asp>.

<sup>5</sup> See e.g. Bloomberg, *AT&T's Forecast Falls Short as iPhone Hold Nears End* (Jan. 27, 2011), available at <http://www.businessweek.com/news/2011-01-27/at-t-s-forecast-falls-short-as-iphone-hold-nears-end.html> (explaining that iPhones account for millions of AT&T's new activations each quarter).

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similarly account for a large portion of network capacity and data usage on the Verizon network after their recent introduction.

21. Apple has the second highest market capitalization of any U.S. company, is the second largest component of the S&P 500 Index, and accounts for roughly 20% of the value of the NASDAQ 100.<sup>6</sup>

22. An exclusion order preventing the importation of iPhones would likely have a significant negative impact on Apple's share price and thus on market indices and associated exchange-traded funds.

23. As of August 2, 2010, Apple was the number two supplier of smart-phones in the United States, providing 28% of U.S. handsets, though other sources place Apple's market share as high as 38%.<sup>7</sup>

24. In 2010 the iPhone provided approximately \$1.9 billion in consumers surplus in the U.S.<sup>8</sup> Consumer surplus is the additional value consumers receive from a product after taking into account the price they pay for the product.<sup>9</sup> The producer surplus for the iPhone in 2010 was approximately \$3.7 billion for sales in the U.S. Producers surplus is the value to the U.S. economy after subtracting off the marginal cost of production. Thus iPhones made a

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<sup>6</sup> Standard & Poor's, *S&P500* (Feb. 23, 2011), available at <http://www.standardandpoors.com/indices/sp-500/en/us/?indexId=spusa-500-usdof--p-us-l-->.

<sup>7</sup> NielsenWire, *Android Soars, but iPhone Still Most Desired as Smartphones Grab 25% of U.S. Mobile Market* (Aug. 2, 2010), available at [http://blog.nielsen.com/nielsenwire/online\\_mobile/android-soars-but-iphone-still-most-desired-as-smartphones-grab-25-of-u-s-mobile-market/](http://blog.nielsen.com/nielsenwire/online_mobile/android-soars-but-iphone-still-most-desired-as-smartphones-grab-25-of-u-s-mobile-market/); PCMag.com, *AT&T Could Lose 16 Percent of Customers to Verizon iPhone* (Jan. 13, 2011), available at <http://www.pcmag.com/article2/0,2817,2375706,00.asp>.

<sup>8</sup> This calculation is based on 2010 iPhone revenue of \$25.2 billion, a percentage of Apple sales in the U.S. of 38%, and a gross margin of 39.4% (Apple 2010 Form 10-K, p. 33, p. 38)).

<sup>9</sup> I discuss how to estimate consumer surplus in J. Hausman, "Sources of Bias and Solutions to Bias in the Consumer Price Index," *Journal of Economic Perspectives* 17, 2003, pp. 23-44. This calculation takes account of the availability and consumers surplus of other competing cell phones.

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significant contribution to both consumers surplus and producers surplus and to economic welfare. They also made a significant contribution to the economic efficiency of the US economy, since the efficiency of the US economy equals the sum of the two surplus measures across all products and services.

25. A decrease in the availability of iPhones would result in consumers facing higher prices for other handsets because of reduced competition. Consumers surplus and producers surplus would decrease by a significant amount.

26. Kodak would not benefit from an exclusion order because it does not sell products that directly compete with iPhones.<sup>10</sup>

27. Eliminating Apple's iPhone products from the U.S. cellular handset market may adversely affect the market trend towards smart phones as the preferred telecommunications technology and the sense of security cellular handsets provide to consumers.

28. iPhone users can perform a large number of tasks with the iPhone to address public health and safety concerns, such as researching medical information, managing home security accounts, viewing surveillance videos, and monitoring the locations of family members.<sup>11</sup>

29. The content supported by the iPhone is not compatible with any other non-Apple device. Apple iPhones function on a different operating system than other smart-phones.<sup>12</sup>

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<sup>10</sup> See [http://store.kodak.com/store/ekconsus/en\\_US/home](http://store.kodak.com/store/ekconsus/en_US/home).

<sup>11</sup> See <http://www.apple.com/iphone/features/>.

<sup>12</sup> See The Next Web, *Anything and Everything You Needed to Know About Smartphones* (Feb. 25, 2010), available at <http://thenextweb.com/mobile/2010/02/25/idiots-guide-smartphones/> (summarizing the different operating systems).

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30. iPhone content is downloaded and purchased from the Apple App Store, but other smart-phones such as the Android cannot access the App Store or operate App Store content and instead offer different, incompatible applications. (ibid.)

31. Apple offers hundreds of thousands of applications for use exclusively with iPhones, while other content providers for other smart-phones offer only a small fraction of similar applications.<sup>13</sup> U.S. consumers surplus for purchases of this content was about \$ [ ] for FY2010.<sup>14</sup> Slightly over [ ] % of revenue is paid to content providers as a royalty. Under the assumption that the marginal cost of an additional download is approximately zero to content providers, the producer surplus for content providers was \$ [ ] for FY2010. These amounts are substantial contributions to economic welfare and the economic efficiency of the U.S. economy.

32. Apple, AT&T, and Verizon all have struggled to meet the demand of iPhone customers given its high degrees of popularity with consumers.<sup>15</sup>

33. I have seen no evidence indicating that either Kodak or its licensees or other third parties have the capacity to replace the enormous volume of articles potentially subject to an exclusion order within a commercially reasonable time.

34. Research In Motion's (RIM) Blackberry products represent an additional 35% of the U.S. smart-phone market.<sup>16</sup>

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<sup>13</sup> Ibid. Non-Apple smart-phone providers offer only 20,000 applications or less.

<sup>14</sup> Basis of calculation is derived from review of Apple confidential financial documents.

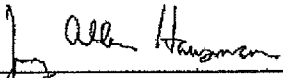
<sup>15</sup> See e.g. Cnet News, *Verizon asks employees to delay iPhone purchases* (Feb. 2, 2011), available at [http://news.cnet.com/8301-13579\\_3-20030480-37.html](http://news.cnet.com/8301-13579_3-20030480-37.html).

<sup>16</sup> NielsenWire, *Android Soars, but iPhone Still Most Desired as Smartphones Grab 25% of U.S. Mobile Market* (Aug. 2, 2010), available at [http://blog.nielsen.com/nielsenwire/online\\_mobile/android-soars-but-iphone-still-most-desired-as-smartphones-grab-25-of-u-s-mobile-market/](http://blog.nielsen.com/nielsenwire/online_mobile/android-soars-but-iphone-still-most-desired-as-smartphones-grab-25-of-u-s-mobile-market/).



***PUBLIC VERSION***

I swear under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Signed this 26th day of February, 2011 at Boston, MA.

  
\_\_\_\_\_  
Jerry Allen Hausman

**EXHIBIT A**

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**JERRY A. HAUSMAN**  
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**EDUCATION:**

OXFORD UNIVERSITY  
D. Phil. 1973 (Ph.D)  
B. Phil. 1972

BROWN UNIVERSITY  
A.B. (Summa Cum Laude), 1968

**THESIS:** "A Theoretical and Empirical Study of Vintage Investment and Production in Great Britain,"  
Oxford University, 1973.

**FELLOWSHIPS, HONORS AND AWARDS:**

Phi Beta Kappa  
Marshall Scholar at Oxford, 1970-1972  
Scholarship at Nuffield College, Oxford, 1971-1972  
Fellow, Econometric Society, 1979  
Frisch Medal of the Econometric Society, 1980  
Fisher-Schultz Lecture for the Econometric Society, 1982  
John Bates Clark Award of the American Economic Association, 1985  
Smith Lectures, Brigham Young University 1986  
Jacob Marschak Lecture for the Econometric Society, 1988  
Hooker Lectures, Macmaster University 1989  
Fellow, National Academy of Social Insurance, 1990  
American Academy of Arts and Sciences, 1991  
Fellow, Journal of Econometrics, 1998  
Shann Memorial Lecture for the Australian Economics Society, 2003  
Cenmap International Fellow, University College London, 2004  
Honorary Professor, Xiamen University, 2005  
Biennial Medal of the Modeling and Simulation Society of Australia and New Zealand, 2005  
Fellow, Modeling and Simulation Society of Australia and New Zealand, 2005  
Condliffe Memorial Lecture, University of Canterbury, NZ, 2005  
Keynote Lecture, Far East Meetings of Econometric Society, Beijing 2006  
Keynote Speaker, ACCC Conference, Australia, 2006  
Keynote Speaker, Panel-Data-Conference, Xiamen-China, 2007  
Keynote Speaker, FTC/Northwestern Antitrust Conference, 2008  
Honorary Fellow, Nuffield College, Oxford University, 2008  
Journal of Applied Econometrics Lectures, 2009  
Leigh Lecture, Washington State University, 2009  
MIT UEA Teaching Award, 2009  
Journal of Financial Economics "All Star Paper", 2009  
Honorary Advisory Board, Chang Mai University, Thailand, 2009-  
Honorary Degree, Chang Mai University, Thailand 2010  
Keynote Speaker, UC Berkeley Conference on Mobile Telecommunications, 2010  
Keynote Speaker, Xiamen University (China) conference on 30 Years of Specification Tests, 2010

**EMPLOYMENT:****MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

1992- John and Jennie S. MacDonald Professor  
 1979- Professor, Department of Economics  
 1976-79 Associate Professor, Department of Economics  
 1973-76 Assistant Professor, Department of Economics  
 1972-73 Visiting Scholar, Department of Economics

**VISITING APPOINTMENTS:**

1986-87 Visiting Professor, Harvard Business School  
 1982-83 Visiting Professor, Harvard University Department of Economics  
 Visiting Positions: University of Washington, Australian National University, Ecole Normale Supérieure, Oxford University, University of Sydney, Wuhan University, Beijing University, University of Western Australia, University College London, Uppsala University, Xiamen University, Sorbonne

**U.S. ARMY, ANCHORAGE, ALASKA**

1968-70 Corps of Engineers

**PROFESSIONAL ACTIVITIES:**

Associate Editor, Bell Journal of Economics, 1974-1983  
 Associate Editor, Rand Journal of Economics, 1984-1988  
 Associate Editor, Econometrica, 1978-1987  
 Reviewer, Mathematical Reviews, 1978-1980  
 American Editor, Review of Economic Studies, 1979-82  
 Associate Editor, Journal of Public Economics, 1982-1998  
 Associate Editor, Journal of Applied Econometrics, 1985-1993  
 Advisory Editor, Economics Research Network and Social Science Research, 1998-  
 Advisory Editor, Journal of Sports Economics, 1999-  
 Advisory Editor, Journal of Competition Law & Economics, 2004-  
 Advisory Editor, Journal of Applied Economics, 2005-  
 Member of MIT Center for Energy and Environmental Policy Research, 1973-1995  
 Research Associate, National Bureau of Economic Research, 1979-  
 Member, American Statistical Association Committee on Energy Statistics, 1981-1984  
 Special Witness (Master) for the Honorable John R. Bartels, U.S. District Court for the Eastern District of New York in Carter vs. Newsday, Inc., 1981-82  
 Member of Governor's Advisory Council (Massachusetts) for Revenue and Taxation, 1984-1992  
 Member, Committee on National Statistics, 1985-1990  
 Member, National Academy of Social Insurance, 1990-  
 Member, Committee to Revise U.S. Trade Statistics 1990-1992  
 Director, MIT Telecommunications Economics Research Program, 1988-  
 Board of Directors, Theseus Institute, France Telecom University, 1988-1995  
 Member, Conference on Income and Wealth, National Bureau of Economic Research, 1992-  
 Member, Committee on the Future of Boston, 1998  
 Member, GAO Expert Panel to advise USDA on Econometric Models of Cattle Prices, 2001-2  
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